Special Suppression and Detection Systems

This newsletter and the next meeting will concentrate on special suppression and detection systems. Often when contractors are asked to install a system they do not deal with on a frequent basis, mistakes are made in the design and submittal process. The Fire Prevention Bureau understands that resubmittals cost time and money. Consequently, this newsletter attempts to touch on the most frequent issues encountered with these systems and how to avoid them.

Special Suppression and Detection Systems

Next Coffee Break

**Topic:** Special Suppression and Detection Systems

**Location:**
DMFD Admin Bldg
2715 Dean Avenue
Des Moines, IA

**Date/Time:** August 2nd, 2017
8:00 AM

Specialized Systems

There are a variety of specialized suppression systems out the market today. The once popular Halon 1211 and 1301 systems that set the standard years ago have been replaced with new, more environmentally friendly, Fluorine and water based chemicals. Today, the most popular systems include foam, dry chemical, water mist, clean agent, and Carbon Dioxide.

A large amount of the code requirements for special suppression systems deal with life safety during discharge. As such audible and visual pre-discharge alarms are required within the protected area of occupiable spaces to give positive warning of impending discharge. The operation of the warning devices must be continued after agent discharge until positive action has been taken to acknowledge the alarm and to proceed with appropriate action. Additionally, warning and safety instruction signs are required to be located such that they will be readily visible to personnel in the area where the specialized suppression agent concentration exceeds that approved for use in normally occupied spaces. The safety sign format and color and the letter style of the signal words must be designed in accordance with ANSI Z535. Finally, for the purpose of preventing accidental discharge, and life safety, some systems, but not all, require abort switches to be provided in the protected area. The abort switch must be of a type that requires constant manual pressure to cause abort. In all cases, the normal manual control, and the manual emergency control shall override the abort function.

As always, when submitting plans, please submit a minimum of two drawings, one copy of the cut sheets, and one copy of the calculations. When submitting plans for specialized systems please remember to include the following items that are frequently forgotten. Drawings must include a cross-sectional view that clearly indicates the floor and ceiling assemblies. Also, please include calculations for any new notification and detection equipment as you would for any other system. With specialized systems, it is also required that you submit calculations for the required flow and concentration needed. Where required, recorded results of the enclosure integrity test shall be provided prior to the final acceptance of the system.

Administrative Reminders

Submittals should always go to Deb Bruce in her office or in the tray across the hall from her office when she is not in her office. Please do not leave them on any of the FPB personnel’s desk. If you would like confirmation of receipt you can check the website. If you don’t see the submittal logged on the website, typically within a day unless Deb is out of the office for an extended period, then follow up with a call or email.

Responses/resubmittals will include specific instructions on how the information should be resubmitted. You may always submit hard copies of resubmittals to the Fire Prevention Bureau at 2715 Dean Avenue. If the action required specifies a hard copy that is how the response should be sent. Typically electronic plans can’t be reproduced/reviewed as required. If the action specifies electronic submittal is acceptable, e.g. calculations or clarifications, they should be emailed to:

firedept@dmgov.org

If you can’t confirm whether or not you received a permit, please check the website prior to calling for a test or inspection.

https://firepermits.dmgov.org/